PROCEDURES FOR ENCODING TOXICITY DATA PUBLISHED IN THE OPEN LITERATURE FOR USE IN ECOLOGICAL RISK ASSESSMENTS

EFED Chemical Reports

Prepared for:
U.S. Environmental Protection Agency
Office of Research and Development
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RELATED SOPS

Documentation related to EFED

Help	Help files for References module
Document Name	**Information/File Name**
Unify Data Fields and Descriptions	Data Fields References.doc
Literature Search, Citation Identification and Skim	SearchskimSOP.doc
Literature Acquisition	LitAcquisitionPaper.doc
LITE EVAL Coding, Data Entry User Guide	LiteEvalSOP.doc (not part of Unify)
Chemical Verification SOP	Chemical Verification and Entry SOP.doc
EFED SOP (March, 2004)	EFEDSOP.wpd (Historical list of special EFED notations in Reference Manager fields)
EFED Literature Acquisition	EFED acquisition.doc

OVERVIEW

This Standard Operating Procedure (SOP) documents the procedure for EPA Office of Pesticide Products (EFED) toxicological reporting processing for chemicals identified in MED Work Requests.

The tasks described in this SOP are intended to track EFED tasks and reports within the Unify system and create final citation databases for EPA/EFED (See Figure 1).

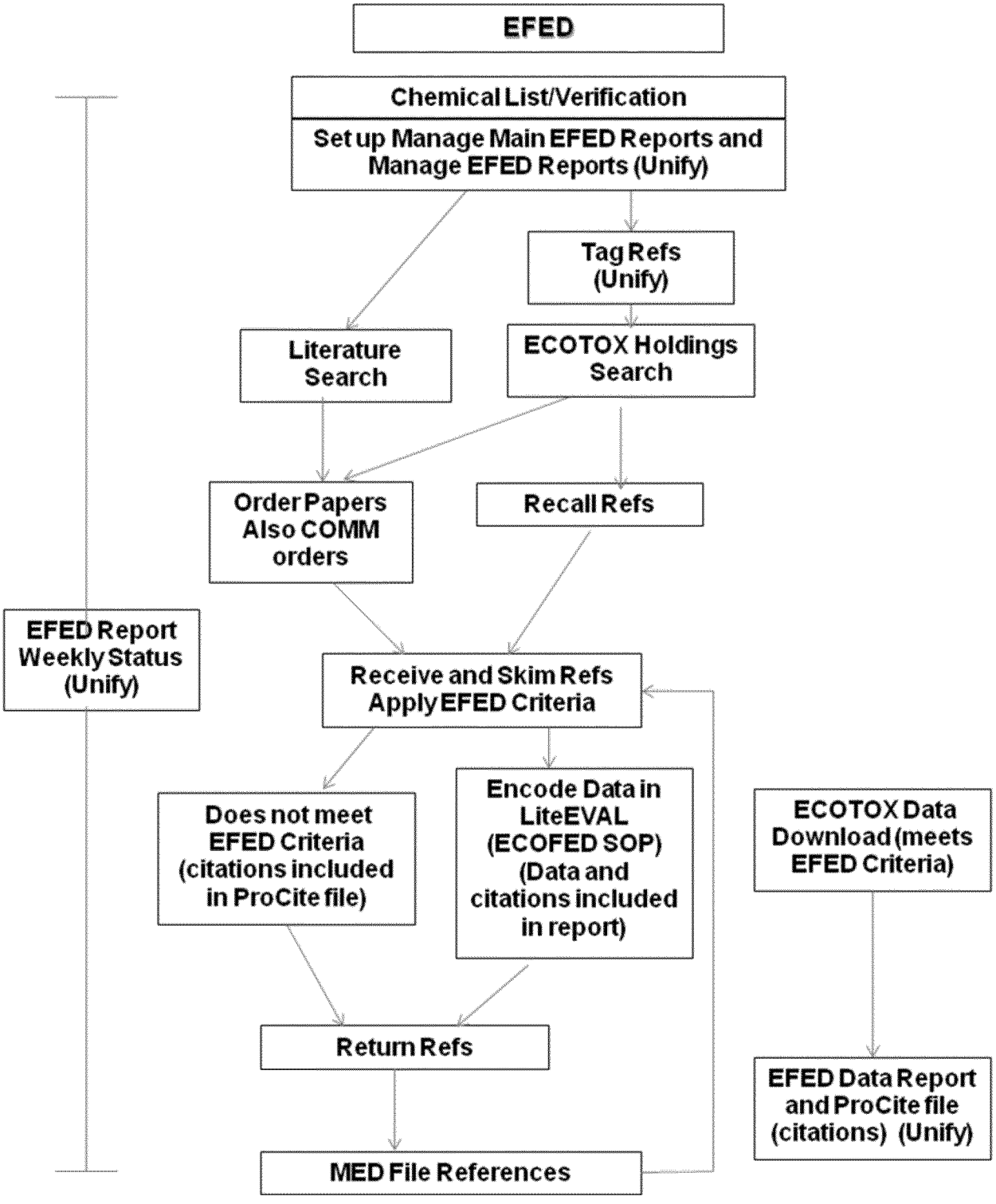
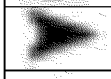
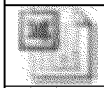


Figure 1. EFED Workflow

SETTING UP CHEMICAL TRACKING AND REPORTS

The chemical verification process is documented in the EFED Acquisition and Skimming SOP. The EFED chemicals are set up and tracked within the Unify report system through four screens; Manage Main EFED Reports, Manage EFED Reports, Tagging References and EFED Reports. All screens use the following Icons/Graphics.

Navigation Icon/Graphics

ICON	Description	Usage
	Magnifying glass	Print View
	Pencil	Edit View
	Page with 'X'	Delete
	Plus Sign/Add Button	Add
	Right Arrow	Hover over to display complete text
	Page with Check	Verified or Activate
↓	Invoke index to display	Match typed in text to valid index
	Circle with Slash	Reject for Verification
	Binoculars	Search
	Printer	Print Command
	Excel Sheet	Download to Excel
	Circle Arrow	Return to search screen
	RIS Export	Exports citations in RIS delimited from for transfer to ProCite or Reference Manager

Manage Main EFED Reports

Manage Main EFED Reports	Sets up new chemicals, chemical names, rejected citation batch and history of EFED reports for the chemical.

This screen establishes the main chemical and search terms for EFED reports. After priority chemicals received and chemical verification process has been completed, the current chemical groups are set up in Unify to track EFED publications and data status. Select the Add New button ( ) to start a new chemical group. Enter the following data fields and click on the "Submit" button: If a chemical exists, review the information to

ensure no additional data should be added/removed.

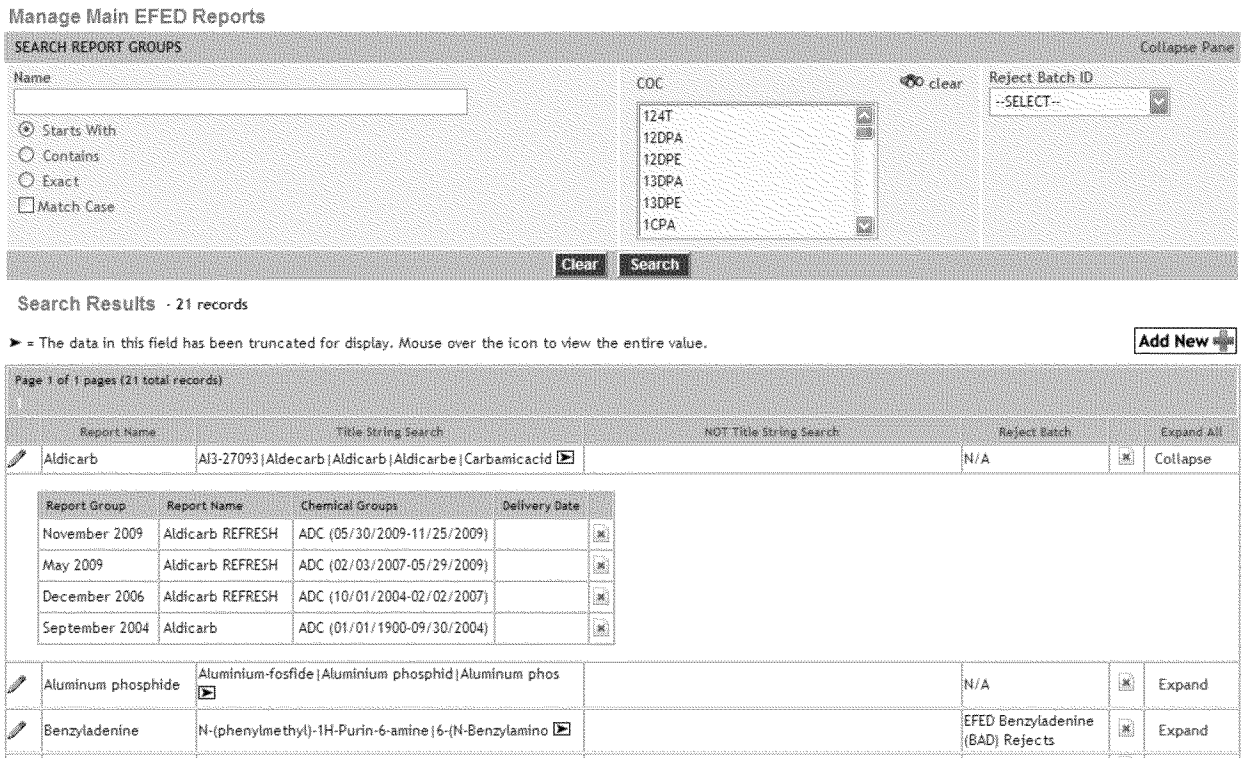
Report Name: Insert the primary chemical name for the report, e.g. Atrazine. Additional chemicals and degradates names/codes are added in the Manage EFED Report screen

Title String Search: Insert all chemical names and synonyms of primary and related chemicals in a pipe (|) delimited format, (chemical name | chemical name). Chemical names can be found in the following file: G:\\ECOTOX Schedule for EFED Pesticides new.doc

NOT Title String Search: Insert all chemical names and synonyms of primary and related chemicals that cause false results in a pipe (|) delimited format, (chemical name | chemical name)

Reject Batch Name: Select the custom file name as set up in Manage Batches (see ECOTOX Literature Acquisition and Paper Process SOP).

Expand/Collapse: Displays/hides all of the reports for that chemical



Manage EFED Reports

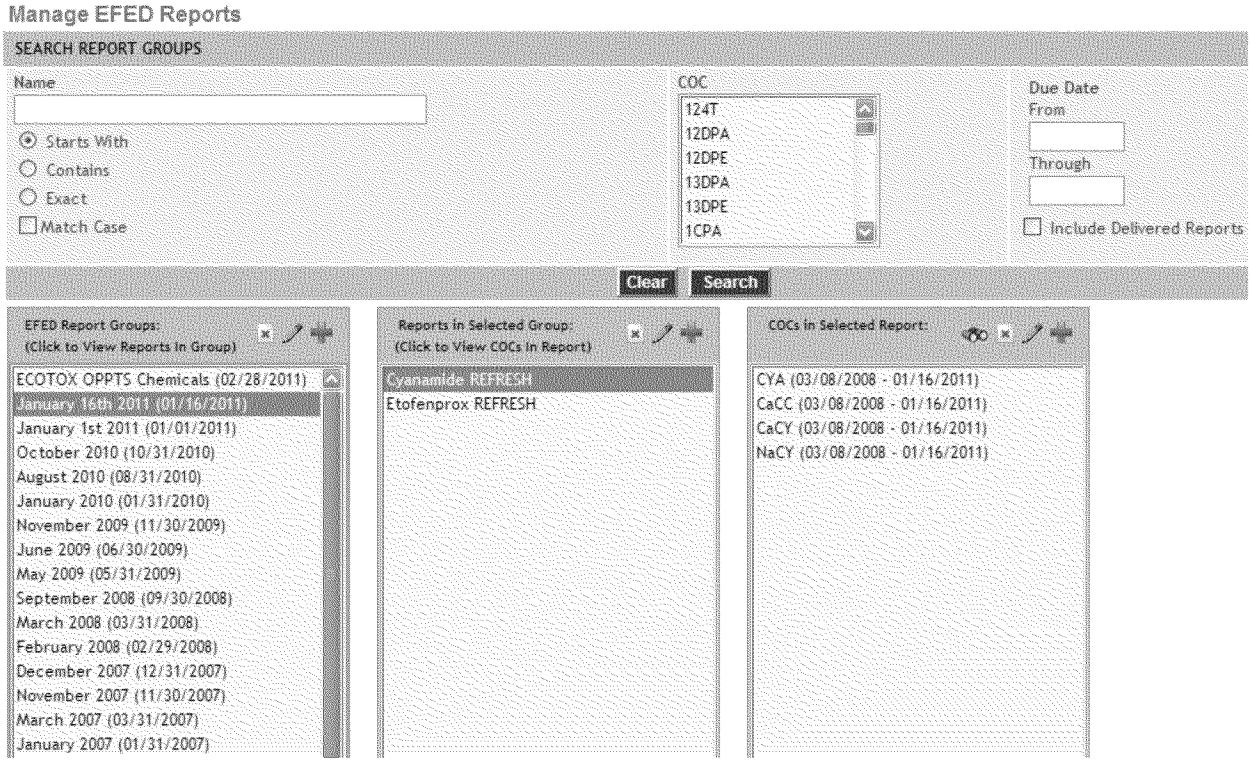
Manage EFED Reports	Sets up due date for current chemical group and lists chemicals within the group

This screen sets up the Report group for the specific chemical reports. These are usually set up by monthly due dates. You can add, edit and remove these fields:

EFED Report Group: Name and due date. To add a new EFED Report group, check the Add New button ( ), enter the name and due date and select Submit. To edit or delete, highlight the appropriate EFED Report group, select the appropriate edit or delete icon.

Reports in Selected Group: Add chemical report names from dropdown and mark in checkbox if this report is a "Refresh" or not (if not checked, this is the first time the chemical has been requested for EFED project.

COCs in Selected Report: Insert primary and related chemicals (COCs) to be included in the report and the report start and end dates for each chemical. If the report is a "Refresh", the Start date will be the day after the last day of the previous EFED Report for that chemical (COC). The Report end dates can be found in the following file: ECOTOX Schedule for EFED Pesticides new.doc

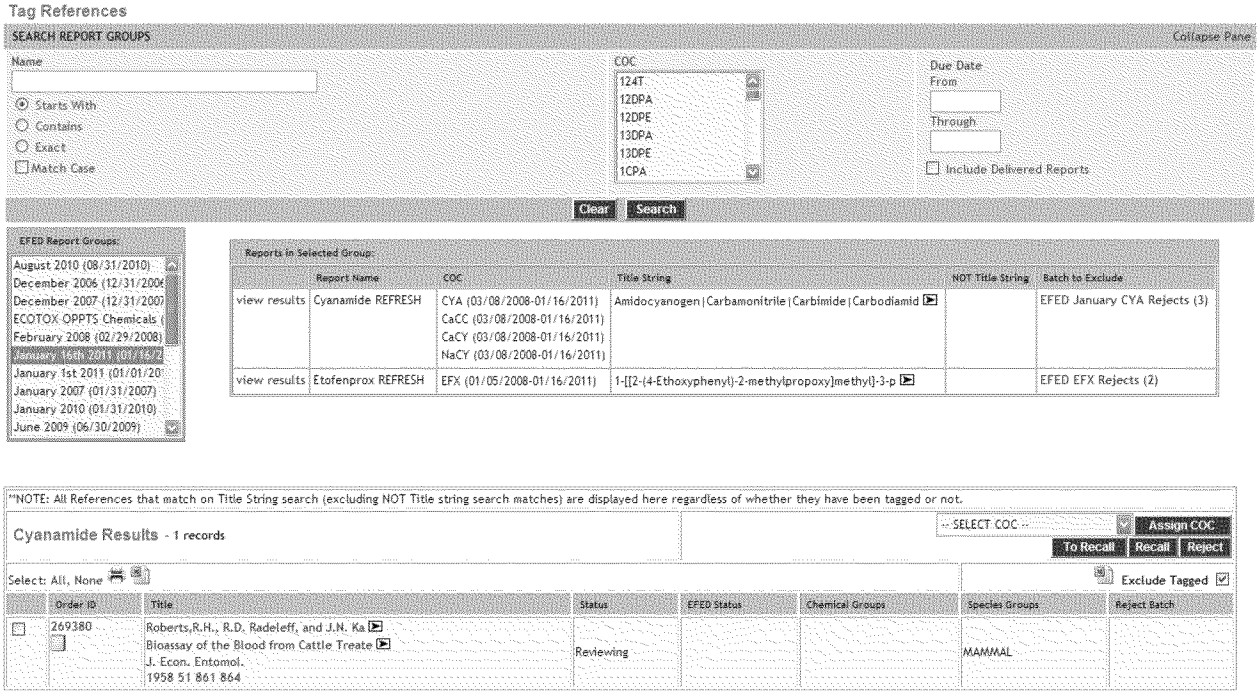


Tag Refs

Tag Refs	Searches chemical names within the publication title field and citations lacking the chemical code (COC) are displayed to be rectified. Tag potentially applicable citations with the chemical code for the report or reject.

This screen is used for the acquisition process to identify and mark references from the chemical searches. See the EFED acquisition SOP for ordering and recall details. This section has been included for tracking of these recalled and ordered papers in the system counts.

The Unify system is designed to automatically locate potentially applicable citations by using the search terms/codes established in the Manage Main EFED Reports feature in Unify. Once the citations are found during the Tag References search and marked for the chemical, the papers are able to be tracked via the EFED report screen.



EFED Reports

EFED Reports	Generates the current status of a chemical report, export RIS files for each category, view with Excel format and deliver the final files.

This screen generates automated counts for each chemical in a report.

Weekly Summary

On a weekly basis (every Friday), a weekly summary of prioritized chemicals is emailed to EPA. The status of all papers for the chemicals is presented in the following manner

and is found on the G:\ drive as a file named EFED Phase I LiteEval Status.xlsx:

Updated:10/26/2010									
				Require Action			Completed		
					Unreviewed				
	Codes	Total	On-Order, Copy Request or Request from MED Files	Need to apply criteria	Non-Target Species (to review)	Target/Crop Species (no review)	Non-Applicable or did not pass criteria	Reviewed into LITE	Date Coding completed
January 1, 2011									
Benzyladenine (Not a Refresh) Red legged frog	BAD	246	37	18	30	0	156	5	

	Report Name	Codes	On Order/Recall	Received, Not Addressed	Target Species	N/A (Excluded)	Not Acceptable	Reviewed into LITE (Acceptable)		
Deliver	Benzyladenine	BAD (01/01/1900-01/01/2011)							LiteEval Report	View

1. Expand the appropriate EFED Report and select View to access the counts for each category.

Chemical	Codes	Total*	Matched on Title, not yet Rejected or Tagged	Unknown	Previously Delivered	Rejected	On Order	On Recall	Need to apply criteria	Non-Target Species to Review	Target Species	N/A (Excluded)	Not Acceptable	Reviewed into LITE (Acceptable)	Delivery Date
Benzyladenine	BAD (01/01/1900-01/01/2011)	246	3	0	0	1	37	0	18	30	0	40	116	5	

2. The columns that are transferred to the EFED Phase I Weekly Status Table.xls include:

- Total (auto generated on spreadsheet for QA)
- On Order + On Recall = On-Order, Copy Request or Request from MED Files on spreadsheet
- Need to apply criteria = Need to apply criteria on spreadsheet
- Non-Target Species to review = Non-Target Species (to review) on spreadsheet
- Target Species = Target/Crop/Efficacy Species = (no review) on spreadsheet
- N/A (Excluded) + Not Acceptable = Non-Applicable or did not pass criteria on spreadsheet
- Reviewed into LITE (Acceptable) = Reviewed into LITE on spreadsheet

The following are the codes to use in counting the status:

Column Heading	Code / Notes
Chemical of Concern and Delivery Date	This is filled in when entering the chemical into the table (chemical verification staff add this information)
Total	Total number of publications processed (autosum of all other fields in this row)
On-Order, Copy Request or Request from MED Files	Number of citations on order/called from MED Files (OL, Copy, COMM, Auth, RECALL)
Need to Apply Criteria	Total number of publications to skim
Non-Target Species (to review)	Number of citations that meet the criteria for EFED Review
Target/Crop/Efficacy (no review)	Number of citations that meet the criteria for EFED Review and are also Target/Crop or Efficacy
Non-Applicable or NO (did not pass criteria)	Number of citations did not meet EFED or ECOTOX criteria (NO, Non-applicable or Archive)
Reviewed into LITE	Number of citations that have been coded and QA'd for LiteEval

3. When chemicals are completed (report is sent to EPA/EFED), the table row is moved to the bottom of the "Completed Chemicals" spreadsheet.

Quality Assurance Procedure for Completion of EFED Chemicals

1.Two to three weeks prior to the due date, provide EPA with citations for publications still on order each time a Weekly Status is provided. Internally, track down any publications needing to be skimmed or reviewed and make sure they are processed right away.

2. One week prior to the deadline, make sure all OK papers have been reviewed. This will allow enough time for QA of the individual publications as well as QA of the excel report and the accompanying ProCite files.

Once the steps above are done, the process of quality assuring the data can begin.

a. In Unify, go to References, select EFED Reports. Expand appropriate Report Group. Go to the EFED Report for chemical. A new window will open up for generating the report. Choose Excel from the Report Type dropdown and select Generate Report. A file download window will open up asking to open or save the Excel file. Choose open.

   An Excel window will open asking to verify the file is from a trusted source and choose yes. Data fields included in the EFED report are found in Appendix B.

b. With the Excel file open, make sure that the chemical names are reported correctly.

   Scroll to the bottom of the sheet. Make sure that there is no error message here. If there is an error message, report this to the programming staff.

c. Either sort by the Phylum field or scroll down and make sure there is a phylum listed for all records. If there is a record(s) without one, investigate this record

d. Either sort by the Endpoint field or scroll down and make sure there is an Endpoint listed for every record. If there is a record without an Endpoint, investigate the record

e. Scroll down and make sure the habitat matches the species. For example if the habitat is Aquatic and the species is Duck, this should be corrected.

f. Sort the Conc Unit Orig field and check to make sure that there is an A Conc type for those units that contain AI (active ingredient).

g. Make sure the conversions look correct in the following fields:

   - Dur Orig/Dur Unit Orig - conversion to - Dur Preferred/Dur Unit Preferred

     (The preferred unit is d (days))

   - Conc Value1 Orig./Conc Units Orig - conversion to -Conc Value1 Purity Adjusted (this is converted according to the entry in the Purity field). NOTE: If the Conc Type is A, the purity conversion will not take place.
   - Conc Value1 Purity Adjusted - conversion to - Conc Value1 Preferred (If any of these conversions seem incorrect, alert the programming staff)
   - Scroll through all the records and make sure none look out of the ordinary.
   -

When all data looks correct , highlight and copy the Ref# column.

- Insert a worksheet and paste the column.
- Put the cursor in the header box (REF#) and sort in ascending order.
- Highlight the entire column and choose “Data” “Filter” “Advanced filter” and

click in the "Unique records only" check box. Choose "OK"

- Select just the unique reference numbers (not the entire column) then choose copy.
- Create a new worksheet and paste the info in the new sheet. Create a one column header labeled "EFED Reviewed" designating the column that contains the ECOREF#'s generated from Reviewed data and one header labeled "UNIFY" designating the column that contains the ECOREF#'s generated from UNIFY. This worksheet will be used to compare the lists of ECOREF# numbers that were from Reviewed data to the ECOREF#'s Unify lists as being "Reviewed (Acceptable)" for the chemical.
- In Unify, with the appropriate Report Group expanded, and in the current Unify Report, select "View". A UNIFYProduction window will appear. On the far right select the numbered box for "Reviewed into Lite (Acceptable)". A File Download window will appear asking whether you want to open or save file, select Open.
- A Microsoft Office Excel window will open asking to verify the file is from a trusted source, choose yes.
- Place the cursor in the header box "ECOREF_NUMBER" and sort in ascending order. Highlight the ECOREF#'s under the header and copy and paste into the new EFED reviewed worksheet created previously under the "UNIFY" header.
- Compare the two columns of ECOREF numbers
- If they are exactly the same then all references are OK.
- If there are ECOREF numbers missing from the EFED reviewed list they are most likely involved in the species verification process and the Species Report Table was not updated. If that step was done, check the reviewed records in Unify and make sure that they are not in a "general species category" such as Aquatic Community which would not produce a Phylum. These records will need to be looked at and a more specific species assigned.
- If there are ECOREF numbers missing from the UNIFY list, the status in Field 17 could be incorrect. Investigate this issue by finding the paper and/or looking for data in Unify for the ECOREF#. Change Field 17 if necessary
- Print out the references list to attach to the completion documentation.

h. Use the Plotting application (pivot table) located N:\ECOTOX SOPs\EFED-Lite Eval \Data Plot Template.xls to determine outliers as one more Quality assurance step.

- First, in Unify EFED Reports, open the appropriate EFED Report as an Excel file as before and rename the worksheet "dynamic". Save file as in the following example: N:\CSC info\Database (offsite) Work Orders \FY2011-2012

SES3\EFED Project\EFED Reports\May 2012\dynamic Dicrotophos plotting.xls

- Open Data Plot Template.xls. A security warning appears above the spreadsheet indicating Macros have been disabled. Select Options Next to Update Security Warning. A Microsoft Office Security Options Security Alert pops up. Select enable this content.

- Select Import & Plot Data and Re-save file as N:\CSC info\Database (offsite) Work Orders\FY2011-2012 SES3\EFED Project\EFED Reports\May 2012\dynamic Dicrotophos plotting.xls a Microsoft pop-up appears indicating the file already exists. Do you want to replace the existing file? Select yes.

- From the plot, look for any outlier data points and investigate as needed. You can view the sorted data and plot again based on limits based on Effect, Concentration, Duration, ConcType, Endpoint, Exp Type, Exp Route, Species Group and Conc Unit to determine trends and possible other outliers. As an example, limit based on species group. From the drop-down, select Aves then plot. A Microsoft pop up appears indicating a formula contains one or mor e invalid references, select OK. View plots and check for outliers. Repeat with other species groups etc. as needed. Save the file upon closing.

When all steps above have been completed, and all data are acceptable, the ProCite files can be created and data can be released to EFED/EPA.

ProCite Files Forwarded to EFED/EPA

When all articles have been reviewed for an EFED chemical, ProCite files are created containing all pertinent citations acquired for the chemical. This section describes the naming convention of the ProCite files sent to EFED/EPA and how to generate the files.

The ProCite files provide the information requested in the SOP "Interim Guidance of the Evaluation Criteria for Ecological Toxicity Data in the Open Literature. Phases I and II. Procedures for Identifying, Selecting and Acquiring Toxicity Data Published in the Open Literature for use in Ecological Risk Assessments. July 16, 2004 version"

EFED ProCite File Naming Convention and Content. The following files are forwarded to EFED/EPA using the same naming convention for each chemical:

- "Chemical name" **acceptable date** (e.g., Chlorophacinone Refresh acceptable January 2011) This file includes citations for all papers that were identified as acceptable to the ECOTOX database effort and passed EFED acceptance criteria. These publications were reviewed and data entered into the system.

- "Chemical name" **not acceptable** date (e.g., Chlorophacinone Refresh not acceptable January 2011) This file includes citations for all papers that were

identified as acceptable to the ECOTOX database effort but did not pass EFED acceptance criteria. The data from these publications is not included in the EFED reports .

- "Chemical name" **excluded** date (e.g., Chlorophacinone Refresh excluded January 2011) This file include citations of papers that were identified as not acceptable or archived for the ECOTOX effort either by rejecting the paper once acquired or rejecting the citation during a literature search (i.e. without acquisition of the paper).

- "Chemical name" **target** date (e.g., Chlorophacinone Refresh target January 2011) This file includes citations of papers that were identified as acceptable to the ECOTOX database effort and passed EFED acceptance criteria. However, the tested species is one that falls into either the TARGET, EFFICACY category as defined in Appendix B or C and discussed earlier in this SOP (under EFED Chemical Verification, Target Species Groups) and therefore is not reviewed for inclusion in Unify.

- "Chemical name" **on order** date (e.g., Chlorophacinone Refresh on order January 2011) This file includes citations of papers that were identified as acceptable to the ECOTOX database effort during the literature acquisition IDing process. The publications have been ordered but have not been received prior to the EFED coding deadline.

The data from the UNIFY bibliographic files is transferred into the following ProCite fields:

Procite Field Number	Information	Notes
1	Author(s)	
4	Title	
8	Effect code	This field list the effect code(s) of the data found in the paper, e.g. **MOR** for mortality
10	Journal	
19	Media and Route	This field lists the media that the organism was tested in (soil or water) and the chemical exposure route, e.g. **ENV, TOP**
20	Date	
22	Volume	
24	Issue	

25	Page Numbers	
42	ECOTOX Reference number	Heading = EcoReference No.:
37a	ECOTOX database status	If a paper has been coded in ECOTOX it will show: **A, T or AT** If a paper has not been coded in ECOTOX it will show: **UR** If a paper has been found not acceptable to ECOTOX it will show: **NON-APPLICABLE or ARCHIVE** **If a paper is still on orderfor ECOTOX it will show: ILL, COPY REQUEST, AUTH, COMM**
37b	Database descriptor for species type as well as special projects	Species grouping and sub-groupings within ECOTOX databases, e.g. RODE for rodents or EFED for Environmental Fate and Effects Division data
40	Test Species Habitat	If the paper has aquatic species it will show: **A** If the paper has terrestrial species it will show: **T** If the paper has both aquatic and terrestrial species it will show: **AT**
42	Chemical(s) of Concern	The three letter code for the chemical(s) is shown
44	Acceptability Criteria Status	Identifies whether the publication has passed ECOTOX and/or EFED acceptance criteria. Examples include: LITE EVAL CODED(COC) NO ENDPOINT(COC)) TARGET(COC) NO IN VITRO(COC)
45	Keywords	If a paper has been found not to be acceptable for ECOTOX the rejection keywords are found here, e.g. **IN VITRO**
43	Abstract	The abstract is found here if available

Generating ProCite F iles

The files are exported from Unify References and the EFED Literature Search files, imported into ProCite, formatted and quality assured prior to forwarding to EFED/EPA.

1. To export on order, target, excluded, not acceptable and/or acceptable citations from UNIFY, expand the pertinent Report Group in EFED Reports:

	Report Name	Codes	On Order/	Received, Not	Target Species	N/A (Excluded	Not Acceptable	Reviewed into LITE		

			Recall	Addressed		)		(Acceptable)		
Deliver	Chlorophacinone REFRESH	CPC 11/19/2004-01/01/2011							Lite Eval Rprt	View

1.Click on the Red Arrow () in each column to generate the RIS export file. Create a folder for the chemical, if it hasn't been previously created. Name the text files using the standard EFED nomenclature outlined previously. If there are no citations in a given category, Unify will display a message stating this (e.g., No ON ORDER References were found for the Chlorophacinone report). Repeat the export process report type for each column in Unify.

2. To export non-applicable, target and/or efficacy files from the EFED Literature Searches go to:

N:\LITSRCH\EFEDLitSearch\January Priority 2011\Chlorophacinone- CPC REFRESH 2011

Open the file and sort by Field 37. Mark the Non-Applicable citations and using the established naming conventions, copy the file to:

N:\CSC info\Database (offsite) Work Orders\FY2010-2011 SES3 Year 2\EFED RefMan and Procite\January 2011\Chlorophacinone Refresh

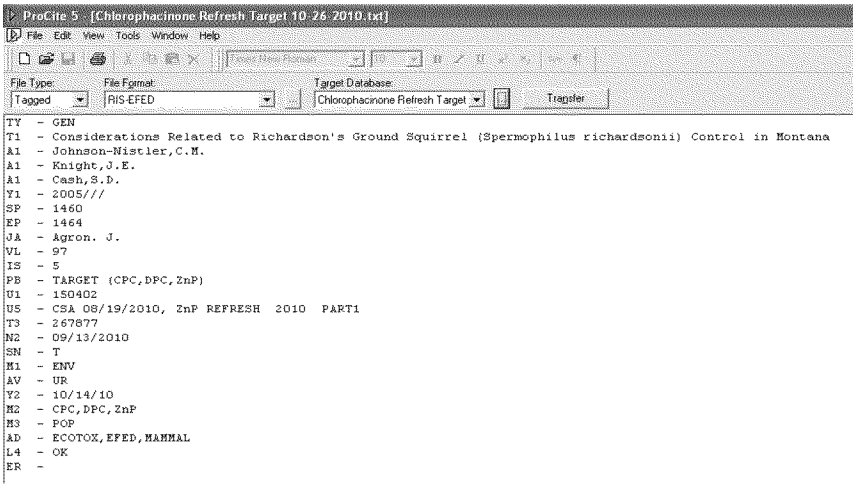
3. To import the files, created in Steps 1 and 2 above, into ProCite, open ProCite, then open the pertinent folder created above. For example:

N:\CSC info\Database (offsite) Work Orders\FY2010-2011 SES3 Year 2\EFED RefMan and Procite\January 2011\Chlorophacinone Refresh\Chlorophacinone Refresh Target January 2011.txt.

The following specific steps are taken to import the Unify Reference files:

1) Open ProCite
2) Choose File, then Open.
3) Choose one of the export files (e.g. Chlorophacinone Refresh Target January 2011.txt) created in the steps above by double clicking on the file name. The export file text will appear (see example below).
4) Confirm that the following information is selected:

File type: Tagged File format: RIS -EFED Target Database: Select …



5) Select Transfer. A message will come up letting the user know if the transfer was successful. Click OK.

Formatting ProCite Files

Once all records have been transferred to a ProCite file some of the fields must be globally modified and/or moved in order to provide the records in EFED standard format. The transferred records should all be marked with an 'x'.

The EFED ProCite File Checklist (next page) and the following section describe the modifications that need to be made to each specific file:

1. "Chemical name" **acceptable** date (Chlorophacinone Refresh acceptable January 2011) Global move field 39 to 19 (end of field)

2. "Chemical name" **not acceptable** date (Chlorophacinone Refresh not acceptable January 2011. Global move field 39 to 19 (end of field)

3. "Chemical name" **on order** date (Chlorophacinone Refresh on order January 2011) Global move field 39 to 19 (end of field)

4. "Chemical name" **target** date (Chlorophacinone Refresh target January 2011)

   a) For citations from Unify References: global move field 39 to 19 (end of field)

   b) For citations from the EFED Literature Search files (target, efficacy):

   - Clear all contents in field 44:
   - Move field 43 to 42 (end of field)
   - Move field 42 to 43 (replacing entire field)
   - Add to beginning of field 44: TARGET (COC)

- Add to beginning of field 29: Chemical of Concern:
- Global move 29 to 42 (end of field)
- Global move 39 to 37 (end of field)

5. "Chemical name" **excluded date** (Chlorophacinone Refresh excluded January 2011)

a) For citations from Unify Refernece s : global move field 39 to 19 (end of field)

b) For citations from the EFED Literature Search files (target, efficacy):

- Clear all contents in field 44
- Move field 43 to 42 (end of field)
- Move field 42 to 43 (replacing entire field)
- Add to beginning of field 29: Chemical of Concern:
- Global move 29 to 42 (end of field)
- Global move 39 to 37 (end of field)

Use the EFED ProCite File Checklist to ensure that all steps are performed. The check list is found below and should be printed out and used for each separate report that is prepared for EPA/EFED. Once the report files have been created, QA'd and delivered, the checklist may be recycled.

EFED ProCite File Checklist - _____

Acceptable

export	Import	39 to 19	check	sent
file name (name acceptable date):		acceptable		

Not Acceptable

export	Import	39 to 19	check	sent
file name (name not acceptable date):		not acceptable		

On Order

export	import	39 to 19	check	sent
file name (name on order date):		on order		

Target	export	import					39 to 19	check	sent
EcoRef									
	Clear 44	43 to 42	42 to 43 (replace)	TARGET (COC) to 44	"Chemical of Concern: " to 29	29 to 42	39 to 37		
Procite									
file name (name target date):			target						

Excluded	export	import				39 to 19	check	sent
Outprocess								
	Clear 44	43 to 42	42 to 43 (replace)	"Chemical of Concern" to beginning of 29	29 to 42	39 to 37		
Procite								
file name (name excluded date):			excluded					

Sending EFED/EPA Completed F iles

Instructions for Word compatible output requests:

1. Use the outp ut format found "ECOTOX Report Style.pos" Make sure file is copied to your ProCite software(C:\Program Files\ProCite5 \Styles), so the style is found your dropdown list.

2. You may need to move ProCite data fields, so they will output properly before printing. Mark the citations you want to print.

3. Within ProCite, under "File", select, "Print Bibliography"

a. Select the output "ECOTOX Report Style" as the output style using the Output Style browse option.

b. Within the Print Bibliography area, select "Configure" and modify "Reference List" options to as needed for proper fields exporting and other customization. Remember to set "Configure Bibliography" (within the Print Bibliography menu) to Show Notes, Abstract, Call Number and Keywords fields for each ProCite file.

c. When all parameters selected, click on "Save" and view the output to in Word or WordPad to ensure it is accurate and add standard header names.

"ECOTOX Report Style.pos" expects the data to be in these data fields for output:

Field #1 (Author)

Field #4 (Title)

Field #8 (Effect codes)

Field #10 (Journal/source)

Field #19 (Exp. Route)

Field #20 (Year)

Field #22 (Volume)

Field #24 (Issue)

Field #25 (Pages)

Field #40 (Database)

Field #42 (ECOREF#, Chemical of Concern)

Field #44 (EFED Status)

Field #45 (Keyword)

Once all files have been created, they are forwarded to the EFED/EPA staff by email with attachments. A copy of the email without attachments is forwarded to CSC staff member who is responsible for updating project status tables.

Example Email:

The data for ChlorophacinoneRefresh 2011 are available in the attached Excel spreadsheet.

Chlorophacinone Refresh 2011.xlsx

All publications have been received for Chlorophacinone Refresh.

The ChlorophacinoneRefresh ProCite files are attached below:

ChlorophacinoneRefresh acceptable January 2011.pdt
ChlorophacinoneRefresh acceptable January 2011.pdx
ChlorophacinoneRefresh not acceptable January 2011.pdt
ChlorophacinoneRefresh not acceptable January 2011.pdx
ChlorophacinoneRefresh target January 2011.pdx
ChlorophacinoneRefresh target January 2011.pdt
ChlorophacinoneRefresh excluded January 2011.pdt
ChlorophacinoneRefresh excluded January 2011.pdx

Be sure to include both files needed for the ProCite files namely .pdx and .pdt

APPENDIX A: EFED BIBLIOGRAPHIC FIELDS

Field Number	Information Contained in Field
02	Reference ID - not to be confused with ECOREF number
03	Title
04	Author(s)
05	Date
06	Notes - This field contains information not found in the other fields, but may be useful for understanding the history of the paper (i.e. ordering history/status of the paper, whether a microfiche has been printed or filed, past Ecoref number the paper was given before rejected, data maintenance issues, etc.)
07	Keyword - All NON-APPLICABLE papers require an appropriate reject reason term placed in this field (i.e. REVIEW, IN VITRO, NO SPECIES, etc.)
09	Starting page
10	Ending page
11	Periodical title
12	Volume
15	Issue number
17	Special Project Status • Provides the status of EFED papers and other special project papers (see examples in the bullets below for chemical of concern Atrazine (ATZ)) • If the paper has been skimmed for EFED, you will see OK(ALL CHEMS) or NO ENDPOINT(ATZ), TARGET(ATZ), etc. • If the paper has been coded for EFED you will see LITE EVAL CODED(ATZ) • If the paper has not been touched by EFED, field 17 will be blank or non-specific (i.e. OK, NO) or will have another special project's info coded in them (TRV, PCB, etc.)
18	ECOREF number
21	Reviewer/Reason • Currently all EFED documents downtown are checked out to: apilli • This can be a helpful field when searching for papers still at CSC. The person who has the paper should have their initials and project code in this field

22	Source • This field provides information on how the paper was identified as having an EFED chemical of concern. • If found by a standard literature search (i.e. SD ATZ 2/5/06, CSA ATZ 2/5/06, Toxline ATZ 2/5/06)
23	Call Back Status • This field identifies if a paper was called back from the EPA files. It also shows which project called the paper back and for what chemical. Tag the chemical (RECALL COC) as they are located Use "FIND COC" to tag papers located at offsite location. Example of an EFED call back: "Called back from MED for EFED September DZ – 6/5/06"
26	Database • A – Aquatic paper • T – Terrestrial paper • AT – both Aquatic and Terrestrial
27	Order Status (Note: this field does not indicate whether the paper is reviewed for EFED; only field 17 will say that) • UR – paper is unreviewed for ECOTOX • A – paper is reviewed for ECOTOX AQUIRE – EFED uses these papers for downloads (AL = Aquatic coded using LiteEval SOP) • T – paper is reviewed for ECOTOX TERRATOX – EFED uses these papers for downloads (TL = Aquatic coded using LiteEval SOP) • NON-APPLICABLE – Paper was skimmed and found to be NON-APPLICABLE for ECOTOX. It is automatically a NON-APPLICABLE for EFED as well. There should be a reject reason KEYWORD in Field 07 as well. Field 17 will also get a reject reason starting with the word "NO" followed by the reject reason "ABSTRACT", "METHODS", "MIXTURE", etc. • ILL – date. Paper is on order • AUTH - date. Paper is on order via author email request. • COPY REQUEST – date. Paper is being copied from the MED library • COMM – date. Paper is being ordered through a commercial vender
29	Route/Media • WATER, SOIL, AQUA, INJECT, ORAL, ENV, TOP, UNK, MIXTURE • This information tells us the organism's environment (WATER) as well as how it was given the chemical dose (INJECT). This information is found at the bottom of skimmed papers.
30	Special Project Chemical • Chemical of concern abbreviations found in the paper are reported in this field (i.e. ATZ, CBL, PRO, etc.)
31	Major Effect Group • ACC, BEH, BCM, CEL, GRO, PHY, etc. • This field contains the effects tested in the paper. Effects are found at the bottom of skimmed papers.

32	Sub-database • This field contains abbreviations for the types of organisms in the paper (RODE, INSECT, P, FISH, INVERT, DOM, DOMA, etc.) This can be used to tell if the paper deals with an EFED target organism, or a non-target organism. • The term "EFED" is also in this field if the paper was skimmed OK for an EFED chemical of concern Codes for other projects may be found in this field, as well (i.e. TRV, CAD, etc.) or indicating a LITBIB REVIEW paper, using the code: LITBIB

Paper Processing Date Fields

20	Reference Status • All existing papers that have been pulled from EPA files get a date in this field once they arrive at CSC.
25	Received Date • This is the date the paper was first received by CSC in the downtown office. • All newly ordered papers will get a date in this field upon arriving at the downtown office • If there is not a date in this field, the paper is still on order and we have not received it.
28	Return to EPA Date • This is the date the paper was returned to the EPA files. • If there is a date in this field, the paper is in the EPA holdings and will have to be called back if needed. • If there is no date in this field, the paper is either still at CSC downtown, or is on order

APPENDIX B: EFED REPORT FIELDS

Original file Excel Column Designator	Field Name	Description
A	CAS Number	Chemical Abstracts Service (CAS) registry number of chemical tested
B	Chemical Name	Name associated with the chemical tested
C	Chemical Grade	Chemical grade
D	Chemical Formulation	Chemical formulation
E	Species Number	Internal Number assigned by ECOTOX/EFED to species tested
F	Age	Species age
G	Age Unit	Species age unit
H	Lifestage	Species lifestage
I	Phylum	Phylum of species tested, auto-populated based on taxonomy/species number
J	Class	Class of species tested, auto-populated based on taxonomy/species number
K	Order	Order of species tested, auto-populated based on taxonomy/species number
L	Family	Family of species tested, auto-populated based on taxonomy/species number
M	Genus	Genus of species tested, auto-populated based on taxonomy/species number
N	Species	Species of species tested, auto-populated based on taxonomy/species number
O	Common Name	Common name of species tested
P	Effect Group	ECOTOX/EFED Effect Group Code
Q	Effect	ECOTOX/EFED Effect Code
R	Meas	ECOTOX/EFED Measurement Code
S	Endpt1	Endpoint 1 - The quantification of an observed effect obtained through statistics or other means of calculation for the express purpose of comparing equivalent effects (e.g., LC50). ECOTOX Appendix T identifies and defines the ECOTOX/EFED endpoint codes.
T	Endpt2	Endpoint 2 (see above) - this is the companion endpoint, i.e. LOAEL if applicable
U	Habitat	Denotes if the test is conducted on aquatic or terrestrial species

Original file Excel Column Designator	Field Name	Description
V	Plant/Animal	Denotes if the test species is a plant or animal, auto-populated based on taxonomy
W	Media	Media of the exposure system
X	Dur Mean Orig Op	Mean Duration operator as reported by the author
Y	Dur Mean Orig	Mean Duration as reported by the author
Z	Dur Min Orig Op	Mean Duration operator as reported by the author
AA	Dur Min Orig	Mean Duration as reported by the author
AB	Dur Max Orig Op	Mean Duration operator as reported by the author
AC	Dur Max Orig	Mean Duration as reported by the author
AD	Dur Unit Orig	Duration Unit as reported by author
AE	Dur Preferred Mean Op	Mean Preferred Duration value operator
AF	Dur Preferred Mean	Mean Duration converted electronically to days, when possible. If not possible, Duration Original (Author reported duration) is retained.
AG	Dur Preferred Min Op	Min Preferred Duration value operator
AH	Dur Preferred Min	Min Duration converted electronically to days, when possible. If not possible, Duration Original (Author reported duration) is retained.
AI	Dur Preferred Max Op	Max Preferred Duration value operator
AJ	Dur Preferred Max	Max Duration converted electronically to days, when possible. If not possible, Duration Original (Author reported duration) is retained.
AK	Dur Unit Preferred	Preferred Duration Unit
AL	Conc Type	Concentration Type denotes the type of chemical used
AM	Conc #1 Author Reported Mean Op	Mean Concentration Value 1 (corresponds to Endpoint 1) as reported by author operator
AN	Conc #1 Author Reported Mean	Mean Concentration Value 1 (corresponds to Endpoint 1) as reported by author
AO	Conc #1 Author Reported Min Op	Min Concentration Value 1 (corresponds to Endpoint 1) as reported by author operator
AP	Conc #1 Author Reported Min	Min Concentration Value 1 (corresponds to Endpoint 1) as reported by author
AQ	Conc #1 Author Reported Max Op	Max Concentration Value 1 (corresponds to Endpoint 1) as reported by author operator
AR	Conc #1 Author Reported Max	Max Concentration Value 1 (corresponds to Endpoint 1) as reported by author

Original file Excel Column Designator	Field Name	Description
AS	Conc Units Author Reported	Concentration Unit 1 (corresponds to Endpoint 1) as reported by author
AT	Conc #1 Purity Adjusted Mean Op	Mean Concentration Value 1 (Purity Adjusted) operator
AU	Conc #1 Purity Adjusted Mean	Mean Concentration converted electronically based on the purity and/or molecular weight of the compound. If not reported, no conversion. If the concentration is measured or based on active ingredient no conversion.
AV	Conc #1 Purity Adjusted Min Op	Min Concentration Value 1 (Purity Adjusted) operator
AW	Conc #1 Purity Adjusted Min	Min Concentration converted electronically based on the purity and/or molecular weight of the compound. If not reported, no conversion. If the concentration is measured or based on active ingredient no conversion.
AX	Conc #1 Purity Adjusted Max Op	Max Concentration Value 1 (Purity Adjusted) operator
AY	Conc #1 Purity Adjusted Max	Max Concentration converted electronically based on the purity and/or molecular weight of the compound. If not reported, no conversion. If the concentration is measured or based on active ingredient no conversion.
AZ	Conc #1 Purity Adjusted in Preferred Unit Mean Op	Mean Concentration Value 1 (Purity Adjusted) converted to a standard unit operator
BA	Conc #1 Purity Adjusted in Preferred Unit Mean	Mean Concentration Value 1 (Purity Adjusted) converted to a standard unit (mg/kg, ppm or mg/L based on exposure route) when possible. If not possible, Concentration Value Purity Adjusted is retained
BB	Conc #1 Purity Adjusted in Preferred Unit Min Op	Min Concentration Value 1 (Purity Adjusted) converted to a standard unit operator
BC	Conc #1 Purity Adjusted in Preferred Unit Min	Min Concentration Value 1 (Purity Adjusted) converted to a standard unit (mg/kg, ppm or mg/L based on exposure route) when possible. If not possible, Concentration Value Purity Adjusted is retained
BD	Conc #1 Purity Adjusted in Preferred Unit Max Op	Max Concentration Value 1 (Purity Adjusted) converted to a standard unit operator
BE	Conc #1	Max Concentration Value 1 (Purity Adjusted) converted to a standard

Original file Excel Column Designator	Field Name	Description
	Purity Adjusted in Preferred Unit Max	unit (mg/kg, ppm or mg/L based on exposure route) when possible. If not possible, Concentration Value Purity Adjusted is retained
BF	Conc #2 Author Reported Mean Op	Mean Concentration Value 1 (corresponds to Endpoint 1) as reported by author operator
BG	Conc #2 Author Reported Mean	Mean Concentration Value 1 (corresponds to Endpoint 1) as reported by author
BH	Conc #2 Author Reported Min Op	Min Concentration Value 1 (corresponds to Endpoint 1) as reported by author operator
BI	Conc #2 Author Reported Min	Min Concentration Value 1 (corresponds to Endpoint 1) as reported by author
BJ	Conc #2 Author Reported Max Op	Max Concentration Value 1 (corresponds to Endpoint 1) as reported by author operator
BK	Conc #2 Author Reported Max	Max Concentration Value 1 (corresponds to Endpoint 1) as reported by author
BL	Conc #2 Purity Adjusted Mean Op	Mean Concentration Value 1 (Purity Adjusted) operator
BM	Conc #2 Purity Adjusted Mean	Mean Concentration converted electronically based on the purity and/or molecular weight of the compound. If not reported, no conversion. If the concentration is measured or based on active ingredient no conversion.
BN	Conc #2 Purity Adjusted Min Op	Min Concentration Value 1 (Purity Adjusted) operator
BO	Conc #2 Purity Adjusted Min	Min Concentration converted electronically based on the purity and/or molecular weight of the compound. If not reported, no conversion. If the concentration is measured or based on active ingredient no conversion.
BP	Conc #2 Purity Adjusted Max Op	Max Concentration Value 1 (Purity Adjusted) operator
BQ	Conc #2 Purity Adjusted Max	Max Concentration converted electronically based on the purity and/or molecular weight of the compound. If not reported, no conversion. If the concentration is measured or based on active ingredient no conversion.
BR	Conc #2 Purity Adjusted in	Mean Concentration Value 1 (Purity Adjusted) converted to a standard unit operator

Original file Excel Column Designator	Field Name	Description
	Preferred Unit Mean Op	
BS	Conc #2 Purity Adjusted in Preferred Unit Mean	Mean Concentration Value 1 (Purity Adjusted) converted to a standard unit (mg/kg, ppm or mg/L based on exposure route) when possible. If not possible, Concentration Value Purity Adjusted is retained
BT	Conc #2 Purity Adjusted in Preferred Unit Min Op	Min Concentration Value 1 (Purity Adjusted) converted to a standard unit operator
BU	Conc #2 Purity Adjusted in Preferred Unit Min	Min Concentration Value 1 (Purity Adjusted) converted to a standard unit (mg/kg, ppm or mg/L based on exposure route) when possible. If not possible, Concentration Value Purity Adjusted is retained
BV	Conc #2 Purity Adjusted in Preferred Unit Max Op	Max Concentration Value 1 (Purity Adjusted) converted to a standard unit operator
BW	Conc #2 Purity Adjusted in Preferred Unit Max	Max Concentration Value 1 (Purity Adjusted) converted to a standard unit (mg/kg, ppm or mg/L based on exposure route) when possible. If not possible, Concentration Value Purity Adjusted is retained
BX	Conc Units Preferred	Standard unit (mg/kg, ppm or mg/L based on exposure route) when possible. If not possible, original units are retained
BY	Number of Conc	Number of concentrations tested
BZ	Chemical Analysis Method	Reports if chemical analysis is measured or unmeasured
CA	pH	pH
CB	Hardness	Hardness value for the test system
CC	Hardness Unit	Hardness Unit
CD	Organic Matter Value	Organic Matter value for the test system
CE	Organic Matter Unit	Organic Matter Unit
CF	Organic Matter Type	The type of Organic Matter in the test system
CG	% Purity	Purity of the test chemical
CH	Test Loc	Test Location (Lab/Field)
CI	Exp Type	Method of chemical delivery in the experiment
CJ	Test ID	ECOTOX Location/Result Number for records imported into the EFED system
CK	Ref #	Internal Reference Number assigned by ECOTOX/EFED to Reference

Original file Excel Column Designator	Field Name	Description
CL	Author	Author of the Reference
CM	Title	Title of the Reference
CN	Source	Citation of the Reference
CO	Publication Year	Publication year of the Reference
CP	Comments	Additional comments made during the review of the paper into the EFED system. These include chemical, species, experimental design, and other effects that do not have an explicit data field in the EFED system.